SNSP-EH-UKV

EXHAUST HEAT

SUPER NINTENDO™
ENTERTAINMENT SYSTEM
PAL VERSION

INSTRUCTION BOOKLET

ocean

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INTRODUCTION

Thank you for buying Exhaust Heat. Before you begin be sure to carefully read this instruction booklet covering the handling of this software and ensure you use it correctly and with care. Please retain this instruction booklet.

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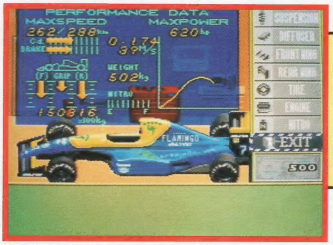
HOW THE GAME PROGRESSES

1. AND WE'RE OFF!

First time players read from here.

2. TRAINING

First, get used to the steering.

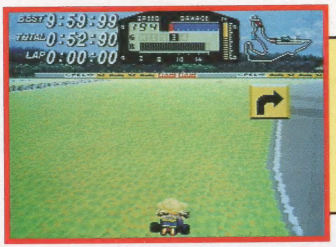


3. FACTORY

Choose your parts and prepare for the race.

4. GRAND PRIX

Take part in the battle of a Grand Prix. Win all 16 and go for the world championship.



5. TEST

To run your best, seek out the right setting for each course. And it's just the thing for trying out those new parts additions.

1. AND WE'RE OFF! WELCOME TO THE CIRCUIT

(1) PLAYER REGISTRATION

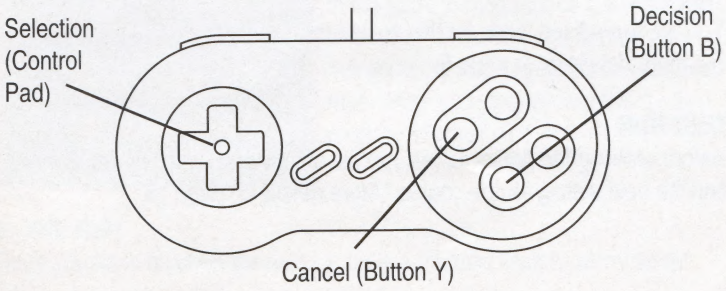
Pressing the START button from the title screen takes Nyou to the driver number selection screen. There are 4 numbers, make your choice. Move the cursor to the car number you want and press button B.

NEW

If you want to delete the information by a particular number select "NEW". Then choose the number you wish to delete and the information will be erased. You can then re-register from the beginning.

USING THE CONTROLLER

(To control your machine.....page 8)



ENTER YOUR NAME

First you have to register the driver's name by the chosen number. Up to 9 letters are possible. Moving the Control Pad up and down selects the letters, left and right moves the cursor. Once you have finished your input press the START button and move on to the next screen.

CHANGE

If you want to change the name you have registered then choose "CHANGE". This enables you to re-register just the name.

RECORD

To see previous record times (page 6)

1. AND WE'RE OFF! WELCOME TO THE CIRCUIT

MODE SELECTION

There are 2 modes, training and grand prix. It is impossible for a beginner to become world champion on the first play. More cautious challengers head for training. All others to Grand Prix.

GRAND PRIX

The preliminaries, then the race. Combine the machine's power and your skill to control the circuit. For more details go to page 17.

TRAINING

You are given fixed funds for this so use them to try the various settings. For more details go to page 5.

TEST RUN

Before entering the preliminaries, run the machine as much as you like to find the best setting for the course. More details on page 18.

END GAME

Returns you to the title page.

2. BUT FIRST THE TRAINING

WHAT IS TRAINING?

FIRSTLY, BASIC PRACTICE IN TRAINING MODE

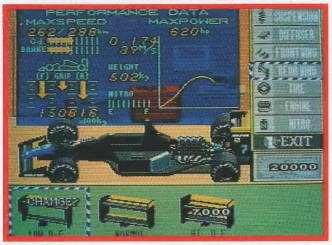
Run the Grand Prix without preparation and you may find you don't get as high a score as you expected.

Aim for a higher rank and to begin with improve your driving technique and machine setting skills with this training.

THE STAGES OF TRAINING

1. MAKING THE CAR

Firstly, at the factory get your machine to the best condition possible using the fixed amount of funds. You will find the different courses and weather conditions will call for different conditions of car. Regular racing will give you knowledge of what works best in different conditions.



ABOUT FUNDS

In the training mode funds are fixed, but in Grand Prix mode you are paid prize money according to your position in each race. Pour your money into the car to prepare it for the next race.

2. THE RUN

Once you have finished the settings there's no hard work to worry about.

You are off! There are 16 courses in all but you should get to know them fairly quickly. Learn the course thoroughly and aim for the perfect run.

3. WATCHING

When the time attack is over the results of each lap are displayed. If a new best time has been set it will remain as a record.

COURSE SELECTION

CHOOSING THE COURSE

There are 16 courses in this game. Each has its own individual layout and it's fair to say that mastery of these decides the winners and losers. Set your machine to match the individual circuit and learn the quirks of the course.

NATIONAL FLAG.
COUNTRY / COURSE DATA

If you wish to select this course choose "YES"
and press button B.

LENGTH

Length of the course.

RACE RECORD

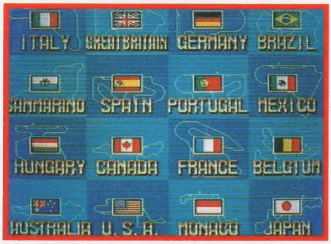
Record of the fastest racer.

LAP RECORD

Record of the person who has run the fastest lap.
Look at the course map and take note of the finish line and pit entrance.

RECORD

It is possible to see the best lap and best type for every course. Moving the Control Pad left and right goes on to the next course, START returns you to the title screen.

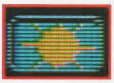


CHOOSE THE COURSE

Using the Control Pad choose the course you want and press button B. This course is then enlarged so you can see the data in detail

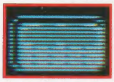
ABOUT THE WEATHER

In the training and tests you can select the weather by pressing the Control Pad.



Clear

Fine race weather.



Drizzle

Light rain wets the track and it's easier to skid.
Change to rain tyres.

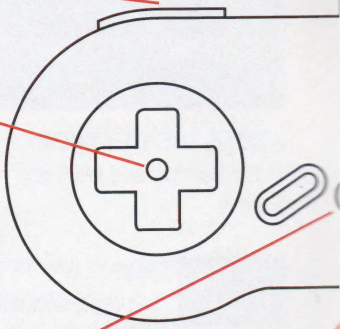
Rain

It's really coming down.
It's very easy to skid so change to rain tyres and drive with caution.

HANDLING

L - SHIFT DOWN

STEERING
Controls the machine left and right.



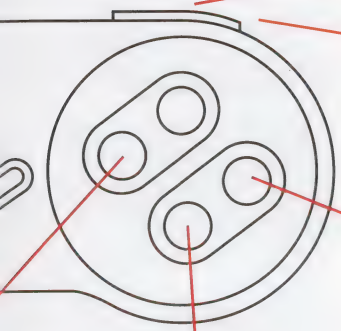
PAUSE
Pressing this during a race suspends the game.

BRAKES (Button Y)
Reduces the machine's speed. In the circuits in the first half of a Grand Prix the use of this decides the winners and losers.

CONFIG
Moving the Control Pad up/down left and right chooses which you would prefer.

Handling
Steering ↔
Gear LR

Steering LR
Gear ↕



R - SHIFT UP

GEAR

Basically it is automatic but by pressing buttons L and R you can shift down and up.

NITRO

Raising the maximum speed of the engine this special fuel can be your trump card. Can only be used when you are carrying Nitro.

ACCELERATOR

Increases the machine's speed. Keep your foot on it for the first half of a Grand Prix.

Sound

MONO
for one speaker.

STEREO
for two speakers.

THE RACE SCREEN

BEST
Shows the best time on this course.

TOTAL
Shows the current running time.

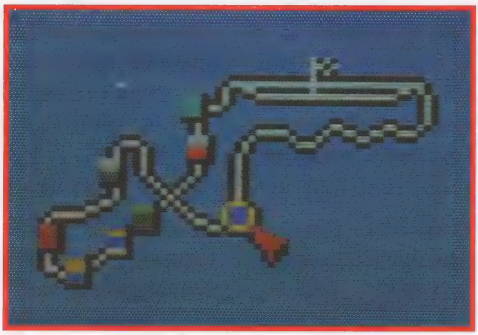
LAP
Shows your fastest lap time.

* As you cross the finish line your position is displayed under "BEST".

WALL
If you collide with this your car will be severely damaged. Take care.

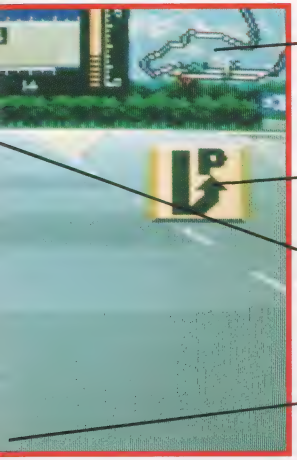
DIRT
If you hit this your speed will drop so try to avoid it.

MAP
Shows the position of rival cars. Your own car is marked with an arrow.



POSITION
Position in the previous lap.

LAP NUMBER Shows how many laps you have done.



MAP
See insert page 10.

COURSE SIGN
As bends and pits approach they are flashed on the screen.

RIVAL CAR
Get ahead of them - and take care not to collide.

MY CAR
You're behind the wheel of this car.

THE METERS

DAMAGE METER
Shows damage to the machine. As you hit walls, rival cars etc., this changes from blue to red. If you enter the pit during the race the damage will be repaired and become zero. If you finish with this meter showing red you will need vast amounts of money for repairs.

SPEEDOMETER
Shows the speed you are going.

NITROMETER
Shows the current level of Nitro.

GEAR POSITION
Shows the current gear position.

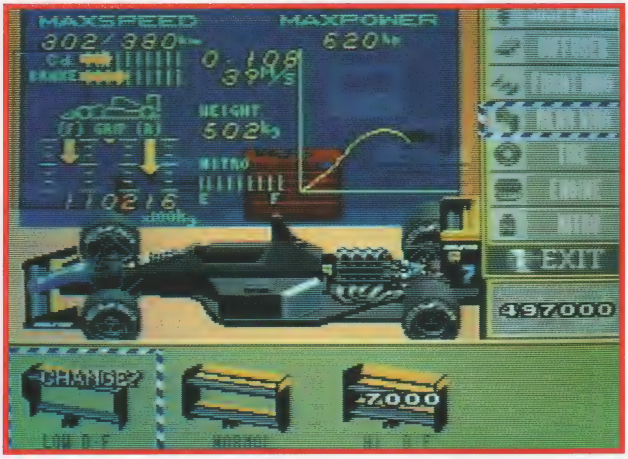
TACHOMETER
Shows the turnover of the engine.

3. PUTTING TOGETHER YOUR MACHINE

On this screen you can purchase and exchange machine parts.

PARTS WINDOW

Think carefully and equip your machine from the parts shown here. About parts see page 19.



PARTS CURSORS

BUY CURSOR
Placed over a part, the price will be shown. You can't install anything without buying it first.

CHANGE CURSOR
When you choose a part it will be exchanged with what you are currently using.

X CURSOR
A cursor looking like this means you cannot buy this particular part.

PERFORMANCE DATA

This window shows the varying efficiency as parts are added and removed. Explanation of performance data page14.

MENU WINDOW

Decide which of the 10 types of part you will add, remove or purchase. If you take the cursor to EXIT, the bottom window and press button B you leave the factory. About parts page 19.

MENU CURSOR

Move the 2 cursors freely and exchange your parts. The parts cursor explanation is below.

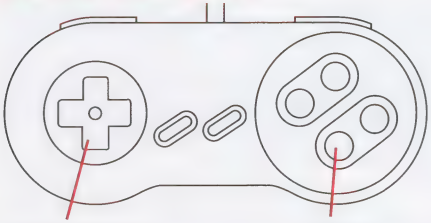
EXIT

This moves you on to the next screen.

FUNDS

Needed to buy parts. When you win a prize in the Grand Prix this increases. In the training mode you will have a fixed amount of money available from the start.

USING THE KEYS



Cursor movement Decision

ABOUT THE PERFORMANCE DATA

MAX SPEED
Shows the machine's maximum speed as:
Normal / max speed
Max. speed / with Nitro

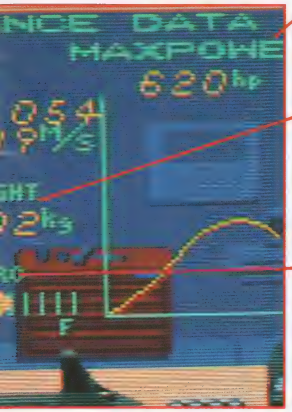
Cd.
Air resistance. The lower this is, the better acceleration.

BRAKE
Shows the machine's braking power (how much force it stops with after the brake has been applied). The higher the value, the easier it is to stop.

(F)
Shows the downforce (DF) on the front of the car (the force pushing the
car down). The higher the DF on this part, the easier it is to corner.

GRIP
Shows the grip of the tyres. The higher this value, the more the tyres stick to the road and the more stable the driving.

(R)
Shows the DF on the back of the car. The higher the downforce, the more difficult it is for the rear of the car to shake on the bends.

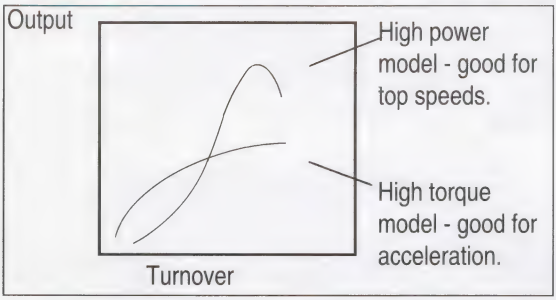


MAX POWER
Shows the engine's maximum output.

WEIGHT
Shows the weight of the car. The heavier it is, the more inertia you will encounter and cornering will deteriorate.

NITRO
The current supply of Nitro, the catalyst which enables high output exceeding the limits.
It pays to use nitro on straight courses. (page 26).

POWER CURVE See the engine's characteristics at a glance.



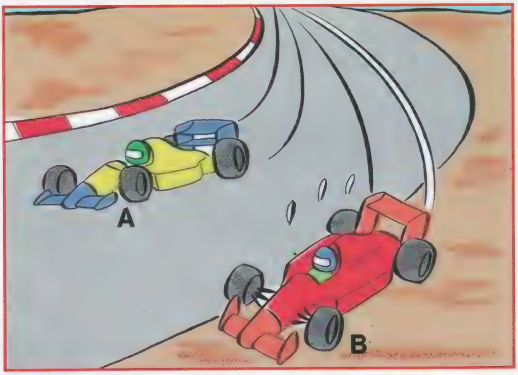
A BASIC INSTRUCTION COURSE

This is an instruction course for those who are not yet completely sure about setting their machine. The basis of speed is the engine. But if you simply increase the engine power you won't turn the corners.

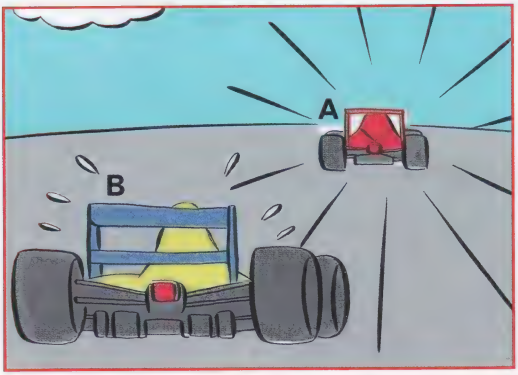
SPEED OR CORNERING

Important to cornering is down force (D.F.). However if you increase DF too much then air resistance increases and acceleration worsens. Lets look at this difference with 2 setting patterns. All parts other than those mentioned are identical.

A FRONT WING - LOW D.F
REAR WING - LOW D.F
DIFFUSER - SMALL



On a bend, even if they corner at the same speed A will not turn as much as B.



B FRONT WING - HI D.F
REAR WING - HI D.F
DIFFUSER - LARGE

When accelerating the lower the air resistance, the faster you accelerate.

So for courses with a lot of bends type B is best, for those with few bends type A. Try out various other combinations and find the setting to suit your driving.

4. TAKE PART IN THE GRAND PRIX

So, at last you can enter the Grand Prix. This Grand Prix is the climax of world motor sports. Good Luck!

RACE

The race schedule is as follows.

(1) Course introduction. The next course, which you chose earlier, is introduced. This is what you will run.

(2) Preparations for the preliminaries (factory 1). Don't forget the machine setting Nitro is especially important for reaching those high speeds so be sure to get some.

(3) Preliminaries. The faster your time in these preliminaries the better your start position in the race.

(4) Preparations for the race (factory 2). The next race decides the winners and losers of this circuit. Make sure you are thorough in your final preparations.

(5) The Decider. Do your best, make for the finish.

(6) See the results. Your driver's points will change according to your winning position.

(7) Record of the race results. To record the race results choose "yes", if you don't want them "No". If you choose "No" the race you have just run will not be recorded and you can run it over again from the beginning. And as records of the best times are recorded automatically there is nothing to lose.

5. THE RACE PROGRESSES

TEST MODE

Up to now you will have run one course, but you can use the test mode after the Grand Prix too. It's easy to change just one part and do a test on this setting so you can confirm what was wrong before. Ignoring time and the competition you can do as many trial runs as you like so do make use of this mode to find the best setting for each course.

PARTS

Change the parts setting each time.

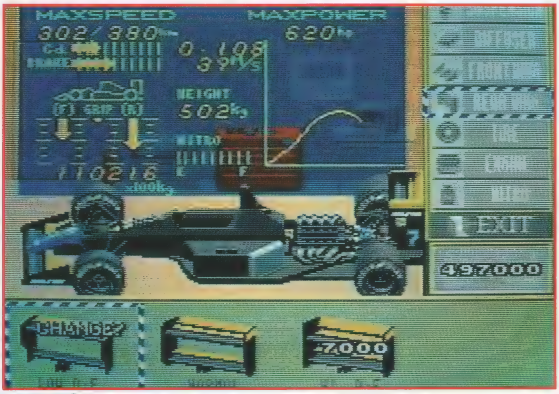
(PARTS SETTING - page 12)
(PARTS EXPLANATION - page 19)

PERFORMANCE DATA

Read the performance data and get to understand your machine
(page 14)

PRIZE MONEY

If you want to buy parts you are stuck without it.
(page 40)



EXPENDABLES

Tyres and nitro cannot be used after one race.
Run again and again and firmly grasp the setting of the machine and the character of the circuit.

END GAME Returns you to the title screen.
RACE (page 17)

ABOUT THE PARTS

NITRO

Originally a special fuel used in the preliminaries, taking on just enough for a few laps to give a faster time. But because it is very heavy, should you replace your usual fuel with this, weight would become a big handicap. So, stored in a separate tank in small quantities (max 4 litres) it is pumped into the engine to give explosive power when needed. Also, as Nitro changes quality very easily, it is thrown away at the end of every race. Try to use up as much as possible.

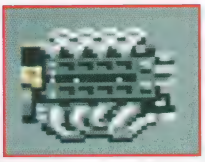
20 Buy it when absolutely necessary

30 Economy price

40 This will fill you up.

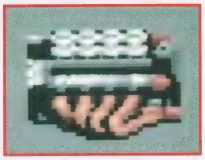
ENGINES

The core part of your machine. Looking at the data table V8 has 8 cylinders arranged in a V shape. The more cylinders the higher the turnover of the engines, but rules set a limit at 12.



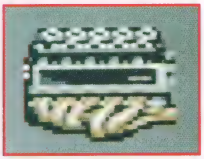
JADD V8

Your first engine. Maximum output is low but it has a wide and easy to use power band.



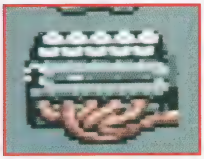
FORO V8

Reasonable high power engine which has cut out the low turnover range in favour of higher output.



ILMOA V10

With a wide power band it can be used satisfactorily, even with transmissions with few levels.

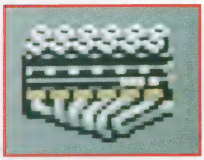


RENART V10

Typical high turnover, high power model engine. Coupled with many leveled transmission it will run alongside high class engines.

HOMODA V12

With an upward running rhythm this engine matches any circuit.



FERARI V12

This displays its skill on high speed circuits and goes beyond winning and losing against an opponent to a battle with your own records.

TYRES

In one race you use and throw away one set of tyres. Bearing in mind that they wear out while racing it is essential to find the right grade to suit your pocket. And should your funds hit rock bottom you will be given spare tyres already used by another team. But nobody wants to sink that low!

SPARE

Second hand tyres. Don't expect any more from them than that they roll. You have these tyres at the outset so change them immediately.

RAIN

Tyres that show their worth in we weather. In fair weather they have medium grip between normal and spare.

NORMAL

Universal, suitable for any course.

HIGRIP

Good for high speed circuits, laying the wing still lower than usual.

SPECIAL

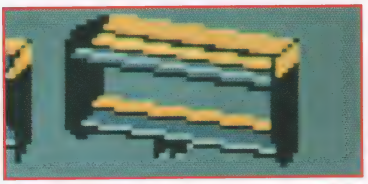
It's very costly to use them every time but they are great for circuits with a lot of bends.

REAR WINGS

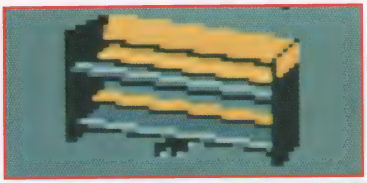
The wing is the device which sends the air up over the car, pushing the tyres down onto the track and increasing the grip. We call the downward push caused by this wing down force (D.F.). Because greater downforce makes the car more stable it is easier to corner. And because the rear wing exerts downforce on the back of the machine it works to improve the stability of the tail. It's best to match it with a front wing and to adapt the setting to each course.

NORMAL
An intermediate rear wing.

LOW D.F.
For high speed courses.



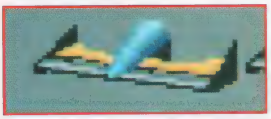
HI D.F.
For courses with a lot of bends.



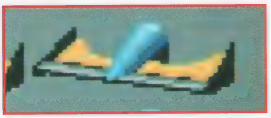
FRONT WING

Adjusts the down force on the front wheels. If the down force is greater at the front than at the back, there's a danger of spinning. The opposite is also a problem - it becomes difficult to corner.

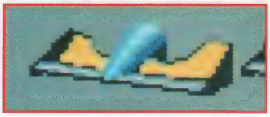
NORMAL
Medium



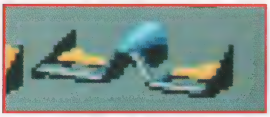
LOW D.F
For high speed courses



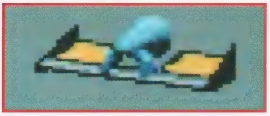
HI D.F
For courses with lots of bends



SPECIAL L
Lowers air resistance



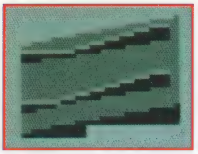
SPECIAL H
Increases downforce, lowers air resistance.



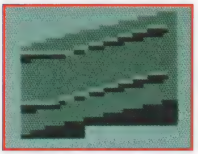
DIFFUSERS

The diffuser is a device that brings about down force by forcing away the air that enters the gap between the undercarriage and the track.
If you use this downforce efficiently it reduces air resistance.

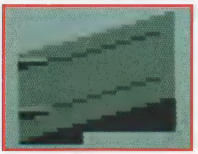
NORMAL
Medium



SMALL
For high speed courses

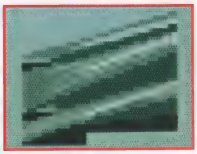


LARGE
for courses with lots of bends



SPECIAL

Brings about a strong down force rather than a large one.



SUSPENSION

Suspension is the unit which improves the efficiency of the wing (DF) and tyres (grip) by controlling the changes in the cars carriage.

SOFT

The initially provided suspension.

HARD

Up grading without costing much.

ACTIVE

The top system using electronically controlled oil pressure pistons instead of springs.

BRAKES

To slow to a desired speed in a short distance you will need to change to a stronger brake.

NORMAL

The initially installed brake.

CARBON

Works well, but it's not that sensitive so you can use it freely.

ANTILOCK

Works incredibly well. But if you are not careful it will reduce your speed more than necessary.

TRANSMISSION

The transmission is the device which changes the speed of the gears. It is divided into several numbered gears. The greater the number of levels of these the lighter the load on the engine and the greater acceleration. Note the 5 and 7 speed gears are sat on their sides for aerodynamics.

4 SPEED

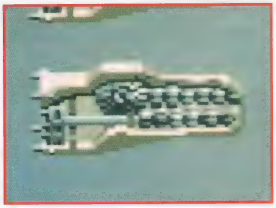
The transmission initially installed. If you follow the shift up time lag with hard movements it's reasonably good.

5 SPEED

Aerodynamically efficient. Recommended for straight runs.

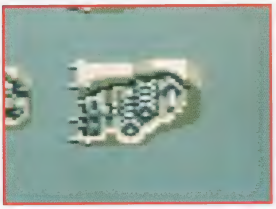
6 SPEED

The construction is simple so cost performance is good.



7 SPEED

The top of the line transmission. Absolutely no need for manual shift.

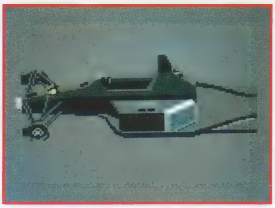


CHASSIS

Sturdy but lightweight high-tech bodies made out of carbon fibres and other complex materials. The better the design the greater the improvement in overall efficiency.

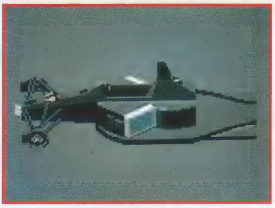
TYPE 1

A chassis with an unstressed, uncomplicated layout. It has the flexibility to take on unbalanced parts.



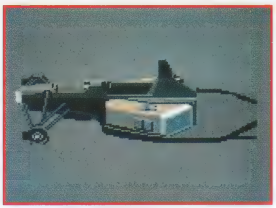
TYPE 2

Along with bringing the radiator forward and improving balance this chassis has greater rigidity. The nature of the parts affects the straights so be careful.



TYPE 3

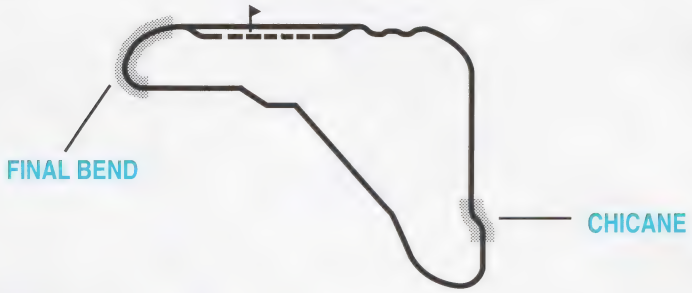
Designed with the emphasis on aerodynamics. It can be very fast if you get the best setting but getting the balance right takes a good deal of experience.



AN INTRODUCTION TO THE COURSES

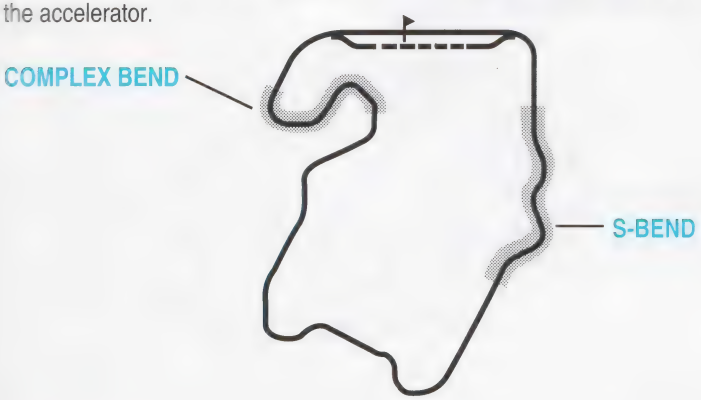
1 ITALY

One of the foremost high speed Grand Prix circuits. The entrance to the final bend is sharp so be careful not to fly off the track.



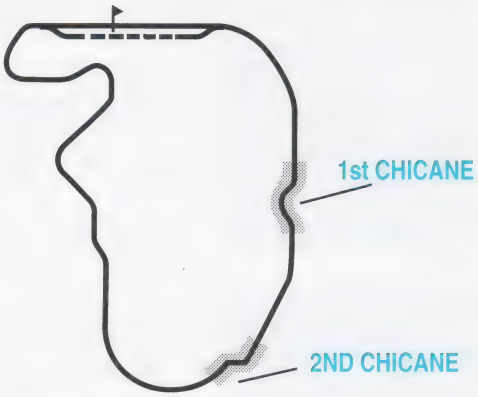
2 GREAT BRITAIN (G.B.)

Characterized by long straight stretches and varied bends. The complex bend in the final half of the course has a very deep turn so be careful with the accelerator.



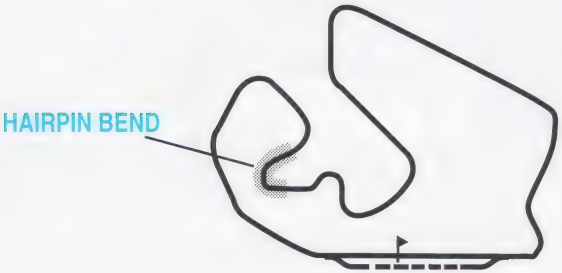
3 GERMANY

For the most part the course consists of straight stretches and full throttle wide bends. Points to be noted are the first chicane and the right hand bend just before the final bend.



4 BRAZIL

Having taken the long fast first half, suddenly small hairpin bends are waiting. Make a smooth changeover.

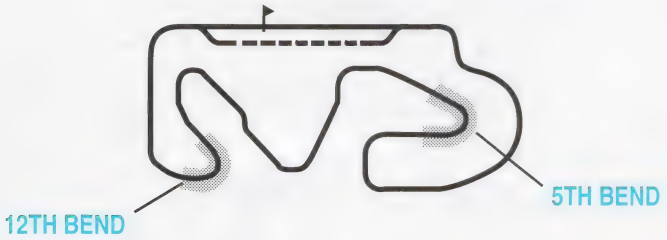


5 SAN MARINO

The first difficult place is an immediate left hairpin bend following a gentle bend to the right. Also be careful not to leave the track on the frequent chicane bends.

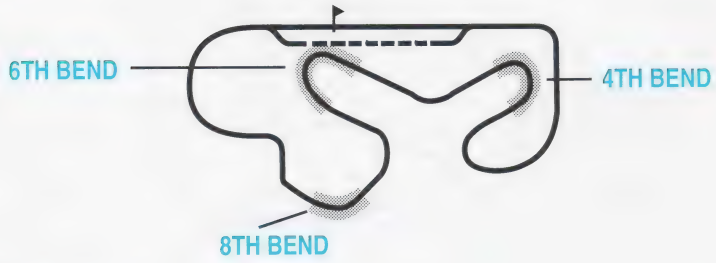
6 SPAIN

A high speed course that also demands careful handling. Watch out for the 5th and 12th corners as they are especially sharp.



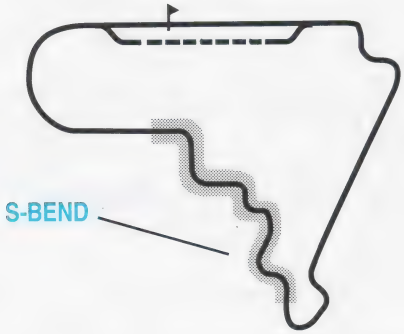
7 PORTUGAL

A course for drivers who win or lose by line and brake turning. In particular, if you come off the 8th Bend you will lose a lot of time so be careful.



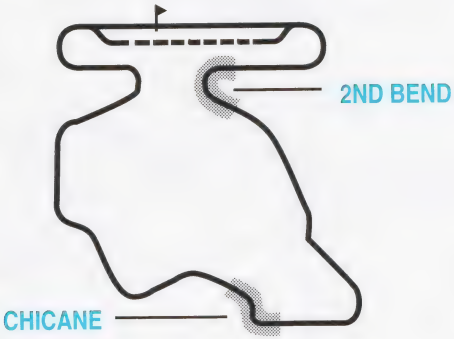
8 MEXICO

Set your car to deal with the succession of S-Bends rather than the long straight stretches. If you remember that the bends get gradually wider, it's easy to conquer.



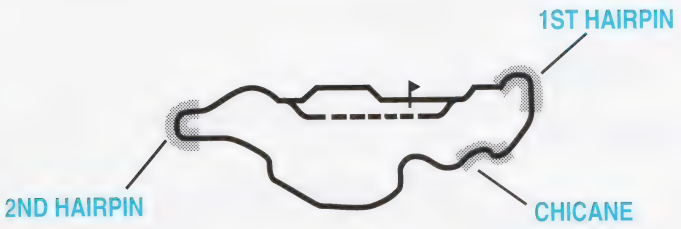
9 HUNGARY

There are lots of bends which are easy to go into too fast so you need to make sure you are keeping to the right line. The places R-50m and R-45m are risky.



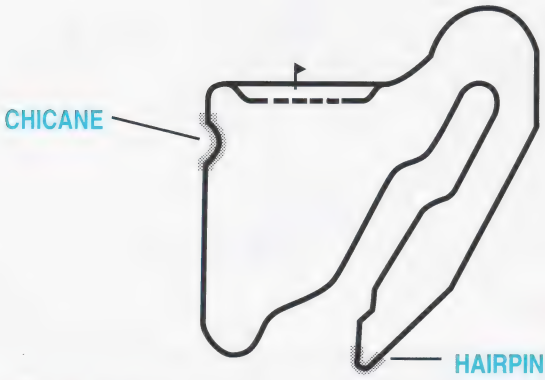
10 CANADA

Managing the hairpins at either end is the key to keeping your time up. Be careful on the chicane immediately following the first hairpin.



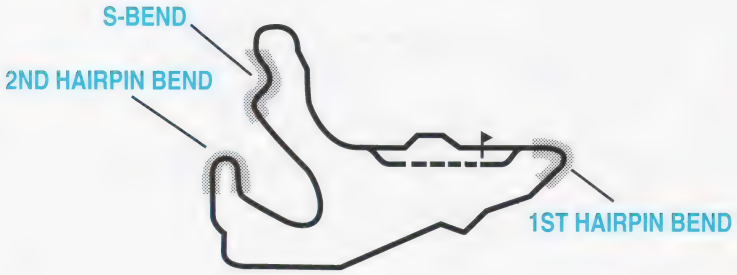
11 FRANCE

There's a sudden extreme hairpin bend after a long long straight stretch, so keep an eye on the course signs and get by it. Remember to cut down your speed on the chicane before the last bend.



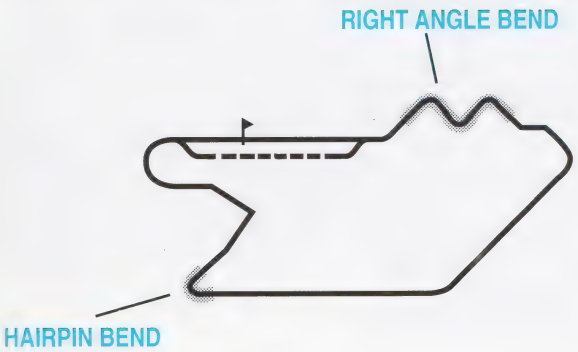
12 BELGIUM

Take care - the acute hairpin bending to the right just after the start comes just when you are accelerating. Enter the S- bend on the inside of the track.



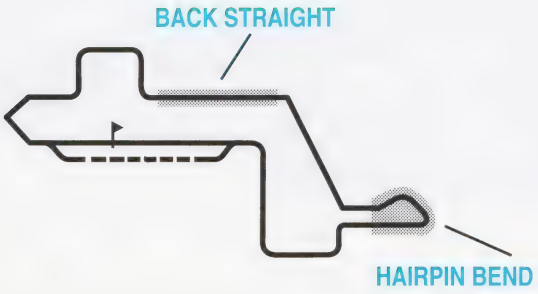
13. AUSTRALIA

This semi-street course has a right angle bend third from the start. At the end of the back straight there is a hairpin bend.



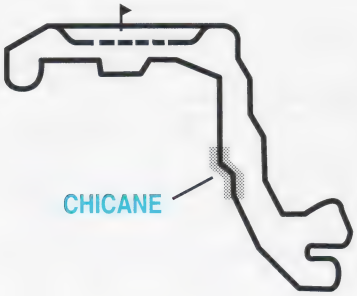
14. U.S.A.(AMERICA)

A straight course bending at right angles. The guardrail is close so there is a danger of hitting it. If you remember the pattern of the corners it's no problem to conquer.



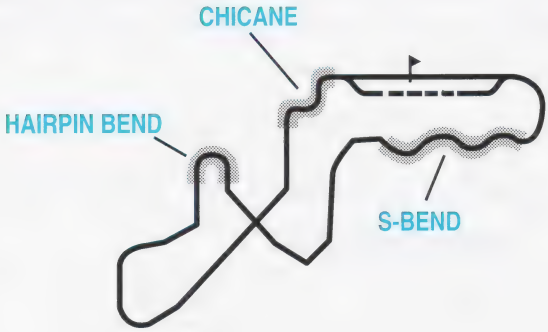
15. MONACO

This short course is scattered with narrow bends. Since the beginning of Grand Prix racing, to win this traditional battle has been a status symbol.



16. JAPAN

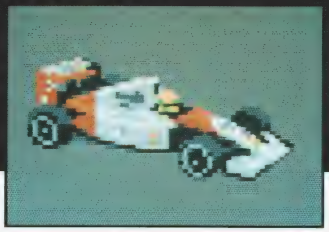
The only figure-of-eight course. Get a good rhythm on the S-bend and slow down enough on the hairpin bend. Take care not to fly off on the chicane.



RIVAL DRIVER PROFILES

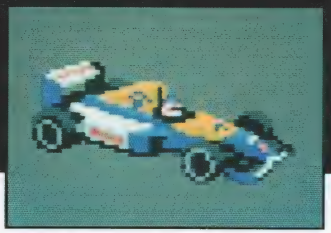
A. SETH (MCL)
Country: Brazil

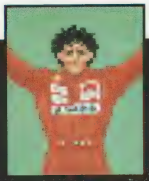
This natural genius of a pilot has held on to the championship for several years. His race style is to aim for pole position in the preliminaries and to cut away from the pack.
The machine relies on its driver and engine.



N. MANSON (WIL.)
Country: Great Britain

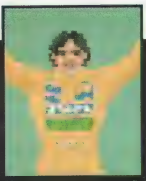
His characteristic is aggressive driving, but this can be his downfall. His machine is well balanced by above all its aerodynamic efficiency.





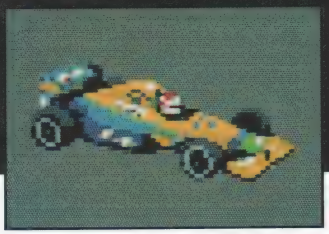
A. PROTEUS (FER.)
Country: France

Called "the Professor" for his skilled driving. The type who steadily climbs the positions from behind. His machine is traditional, built around the engine.



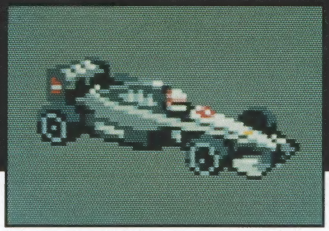
N. PIOUS (BEN.)
Country: Brazil

A hot-blooded Brazilian. At the moment he is no longer champion but with his simply finished machine his morale is climbing. Along with the TYR team his weakness is in the tyres.



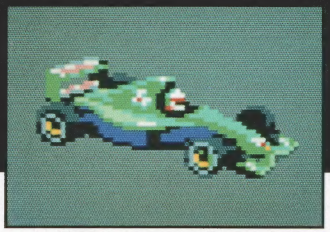
S. NAKADA (TYR.)
Country: Japan

Valued for his ability but because of his age his physical limitations are cause for concern. His machine is not entirely satisfactory but has considerable latent potential.



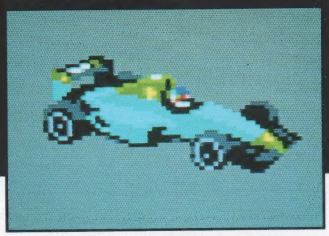
A. CHESTER (JOR.)
Country: Italy

This rough driver has been called "The Crusher" but has steadied out in his new team's superb machine.



I. CAPYS (LEY.)
Country: Italy

This fierce driver was originally known as "The Tiger", but he cannot give up his well-meaning but weak team. When the course fits "The Tiger" runs again.



FORMAL "EXHAUST HEAT" RULES

1. ENTRANCE FEE RULES

The Entrance fee is the same for each race. After the preliminaries you will be charged $1,000. However, even if your funds are not sufficient to cover this entrance fee you will be able to participate.

2. TIME RULES

Participants must cross the finish line within 9 mins 59 secs. Those on the course for 10 minutes or more will be considered retired.

3. LAP REGULATIONS

On each course:
Preliminaries: 2 laps. Your pole position for the main race will be decided by the best lap time of the two. The Race: 3 laps of the whole course. Position is calculated from the first to cross the finish line.

4. PIT IN REGULATIONS

When you pit-in you can repair any damage to your car.

BACKUP CLEAR

When you want to clear the backup memory (Data for each number and all time records) hold the SELECT button down and press RESET. Still keeping the SELECT button down wait for the title screen. All records will be cleared, the game will be in the same state as when you first bought it. However reversing into the pit and last minute pitstops on the 3rd lap finish line are not allowed. Repairs carried out in the pit are without charge, so remember to pit-in if you are in the red or a low position.

5. PRIZE MONEY REGULATIONS

Prize money will be paid for each race according to position.

6. DRIVER POINT REGULATIONS

In each race driver points can be acquired - the higher your position, the more points. The driver accumulating the most driver points in the 16 races of the year becomes the series champion.

7. FINISHING RULES

Cars crossing the finishing line must do so under their own steam. Those aiming to finish by contact with another car will be forced to retire.

SPECIAL TERMS

DNQ

Your time in the preliminaries was unable to be measured.

DNF

If for some reason or other your time was not measured this appears.

RETIRE

Appears if you do not cross the finish within the given time.

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